



PATENT  
Docket No. 511582002410

#8

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*Tami M. Procopio*  
Tami M. Procopio

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Arthur B. RAITANO, *et al.*

Serial No.: 10/017,066

Filing Date: 14 December 2001

For: NOVEL G PROTEIN-COUPLED  
RECEPTOR UP-REGULATED IN  
PROSTATE CANCER AND USES  
THEREOF

Examiner: To Be Assigned

Group Art Unit: 1642

SUBMISSION OF SUBSTITUTE DRAWINGS

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Attached please find 27 sheet(s) of substitute drawings in connection with the above-identified application.

Respectfully submitted,

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By: Kate H. Murashige  
Registration No. 29,959

Dated: May 28, 2002

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FIG. 1A

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5'   9      18      27      36      45      54
CAG AGA GGC TGT ATT TCA GTG CAG CCT GCC AGA CCT CTT CTG GAG GAA GAC TGG
-----
      63      72      81      90      99      108
ACA AAG GGG GTC ACA CAT TCC TTC CAT ACG GTT GAG CCT CTA CCT GCC TGG TGC
-----

      117      126      135      144      153      162
TGG TCA CAG TTC AGC TTC TTC ATG ATG GTG GAT CCC AAT GGC AAT GAA TCC AGT
-----
                        M M V D P N G N E S S

      171      180      189      198      207      216
GCT ACA TAC TTC ATC CTA ATA GGC CTC CCT GGT TTA GAA GAG GCT CAG TTC TGG
-----
A T Y F I L I G L P G L E E A Q F W

      225      234      243      252      261      270
TTG GCC TTC CCA TTG TGC TCC CTC TAC CTT ATT GCT GTG CTA GGT AAC TTG ACA
-----
L A F P L C S L Y L I A V L G N L T

      279      288      297      306      315      324
ATC ATC TAC ATT GTG CGG ACT GAG CAC AGC CTG CAT GAG CCC ATG TAT ATA TTT
-----
I I Y I V R T E H S L H E P M Y I F

      333      342      351      360      369      378
CTT TGC ATG CTT TCA GGC ATT GAC ATC CTC ATC TCC ACC TCA TCC ATG CCC AAA
-----
L C M L S G I D I L I S T S S M P K

      387      396      405      414      423      432
ATG CTG GCC ATC TTC TGG TTC AAT TCC ACT ACC ATC CAG TTT GAT GCT TGT CTG
-----
M L A I F W F N S T T I Q F D A C L

      441      450      459      468      477      486
CTA CAG ATT TTT GCC ATC CAC TCC TTA TCT GGC ATG GAA TCC ACA GTG CTG CTG
-----
L Q I F A I H S L S G M E S T V L L

      495      504      513      522      531      540
GCC ATG GCT TTT GAC CGC TAT GTG GCC ATC TGT CAC CCA CTG CGC CAT GCC ACA
-----
A M A F D R Y V A I C H P L R H A I

      549      558      567      576      585      594
GTA CTT ACG TTG CCT CGT GTC ACC AAA ATT GGT GTG GCT GCT GTG GTG CGG GGG
-----
V L T L P R V T K I G V A A V V R G

      603      612      621      630      639      648
GCT GCA CTG ATG GCA CCC CTT CCT GTC TTC ATC AAG CAG CTG CCC TTC TGC CGC
-----
A A L M A P L P V F I K Q L P F C R

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# FIG. 1B

657	666	675	684	693	702
TCC AAT ATC CTT TCC CAT TCC TAC TGC CTA CAC CAA GAT GTC ATG AAG CTG GCC					
S N I L S H S Y C L H Q D V M K L A					
711	720	729	738	747	756
TGT GAT GAT ATC CGG GTC AAT GTC GTC TAT GGC CTT ATC GTC ATC ATC TCC GCC					
C D D I R V N V V Y G L	I V I I S A				
765	774	783	792	801	810
ATT GGC CTG GAC TCA CTT CTC ATC TCC TTC TCA TAT CTG CTT ATT CTT AAG ACT					
I G L D S L L I S F S Y L L I L K	T				
819	828	837	846	855	864
GTG TTG GGC TTG ACA CGT GAA GCC CAG GCC AAG GCA TTT GGC ACT TGC GTC TCT					
V L G L T R E A Q A K A	F G T C V S				
873	882	891	900	909	918
CAT GTG TGT GCT GTG TTC ATA TTC TAT GTA CCT TTC ATT GGA TTG TCC ATG GTG					
H V C A V F I F Y V P F I G L S M	V				
927	936	945	954	963	972
CAT CGC TTT AGC AAG CGG CGT GAC TCT CCG CTG CCC GTC ATC TTG GCC AAT ATC					
H R F S K R R D S P	L P V I L A N I				
981	990	999	1008	1017	1026
TAT CTG CTG GTT CCT CCT GTG CTC AAC CCA ATT GTC TAT GGA GTG AAG ACA AAG					
Y L L V P P V L N P I V Y G V	K T K				
1035	1044	1053	1062	1071	1080
GAG ATT CGA CAG CGC ATC CTT CGA CTT TTC CAT GTG GCC ACA CAC GCT TCA GAG					
E I R Q R I L R L F H V A T H A S E					
1089	1098	1107	1116	1125	1134
CCC TAG GTG TCA GTG ATC AAA CTT CTT TTC CAT TCA GAG TCC TCT GAT TCA GAT					
P *					
1143	1152	1161	1170	1179	1188
TTT AAT GTT AAC ATT TTG GAA GAC AGT ATT CAG AAA AAA AAT TTC CTT AAT AAA					
1197	1206	1215	1224	1233	1242
AAA TAC AAC TCA GAT CCT TCA AAT ATG AAA CTG GTT GGG GAA TCT CCA TTT TTT					
1251	1260	1269	1278	1287	1296
CAA TAT TAT TTT CTT CTT TGT TTT CTT GCT ACA TAT AAT TAT TAA TAC CCT GAC					
1305	1314	1323	1332	1341	1350
TAG GTT GTG GTT GGA GGG TTA TTA CTT TTC ATT TTA CCA TGC AGT CCA AAT CTA					



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AAA A 3'

5 - 2

FIG. 2

1	15 16	30 31	45 46	60 61	75 76	90	
1	101P3A11	MMVDPNGNESSATYF	ILIGLPGLEEAQFWL	APPLGSLYLI AVLGN	LTIIYIVRTEHSIHE	PMYIFLCMLSGIDIL	ISTSSMPKMLAIFWF
2	RA1C	-MSSCN---FTHATF	MLIGIPGLEEAHFWF	GFPLLSMYAVALFGN	CIVVFIVRTERSIIHA	PMYIFLCMLAAIDLA	LSTSTMPKILALFWF
3	HPRAJ70	-MSSCN---FTHATC	VLIIGIPGLEKAHFWV	GFPLLSMYVVAMCGN	CIVVFIVRTERSIIHA	PMYIFLCMLAAIDLA	LSTSTMPKILALFWF
	91	105 106	120 121	135 136	150 151	165 166	180
1	101P3A11	NSTTIQFDACLLQIF	AIHLSLSMESTVLLA	MAFDRYVAICHPLRH	AVVTLPRVTKIGVA	AVVRGAALMAPLPVF	IKQLPFCRSNILSHS
2	RA1C	DSREITFDACLAQMF	FIHALSAIESTILLA	MAFDRYVAICHPLRH	AAVLNNTVTVOIGMV	ALVRSGLFFFPPLPLL	IKRLAFCHSNVLSHS
3	HPRAJ70	DSREISIEACLTQMF	FIHALSAIESTILLA	MAFDRYVAICHPLRH	AAVLNNTVTTAQIGIV	AVVRSGLFFFPPLPLL	IKRLAFCHSNVLSHS
	181	195 196	210 211	225 226	240 241	255 256	270
1	101P3A11	YCLHQDVMKLCDDI	RNVVVYGLIIVISAI	GLDSLLISFSYLLIL	KTVLGLT-REAQAKA	FGTCVSHVCAVFIFY	VFFIGLSMVHFRFSKR
2	RA1C	YCVHQDVMKLAYTDT	LPNVVYGLTALLVM	GVDVMFISLSYFLII	RAVLQLPSKSERAKA	FGTCVSHIGVVLAFY	VPLIGLSVHVRGNS
3	HPRAJ70	YCVHQDVMKLAYADT	LPNVVYGLTALLVM	GVDVMFISLSYFLII	RTVLQLPSKSERAKA	FGTCVSHIGVVLAFY	VPLIGLSVHVRGNS
	271	285 286	300 301	315 316	330 331	345 346	360
1	101P3A11	RDSELPVILANIYLL	VPPVLNPIIVGVKTK	EIRQRILRLFHVATH	ASEP-----	318	
2	RA1C	LDPIVHVLMGDVYLL	LPPVINPIIYGAKTK	QIRTRVLAMFKISCD	KDIEAGGNT	320	
3	HPRAJ70	LHPIVRVVMGDIYLL	LPPVINPIIYGAKTK	QIRTRVLAMFKISCD	KDLQAVGGK	320	

FIG. 3

GATCAAACCTCTCTTTCCATTAGAGTCCTCTGATTCAGATTTTAAATGTTAACATTTTGGAAGACAGTATTCAGAAAAAA  
AATTTCCCTTAATAAAAAATACAACCTCAGATCCTTCAAATATGAACTGGTGGGGAATCTCCATTTTTCATATTATT  
TCTTCTTTGTTTTCTTGCTACGTATAATTATTAATATCCTGACTAGGTTGTGGTTGGAGGGTTATTACTTTTCATTTTA  
CCATGCAGTCCAAATCTAAACTGCTTCTACTGATGGTTTACAGCATTCTGAGATAAGAATGGTACATCTAGAGAACATT  
TGCCAAAGGCCTTAAGCACAGCAAGGAAAAATAACACAGAATATAATAAAATGAGATAATCTAGCTTAAAACTATAACT  
TCCTCTTTAGAACTCCCAACCATTTGGATC

FIG. 4

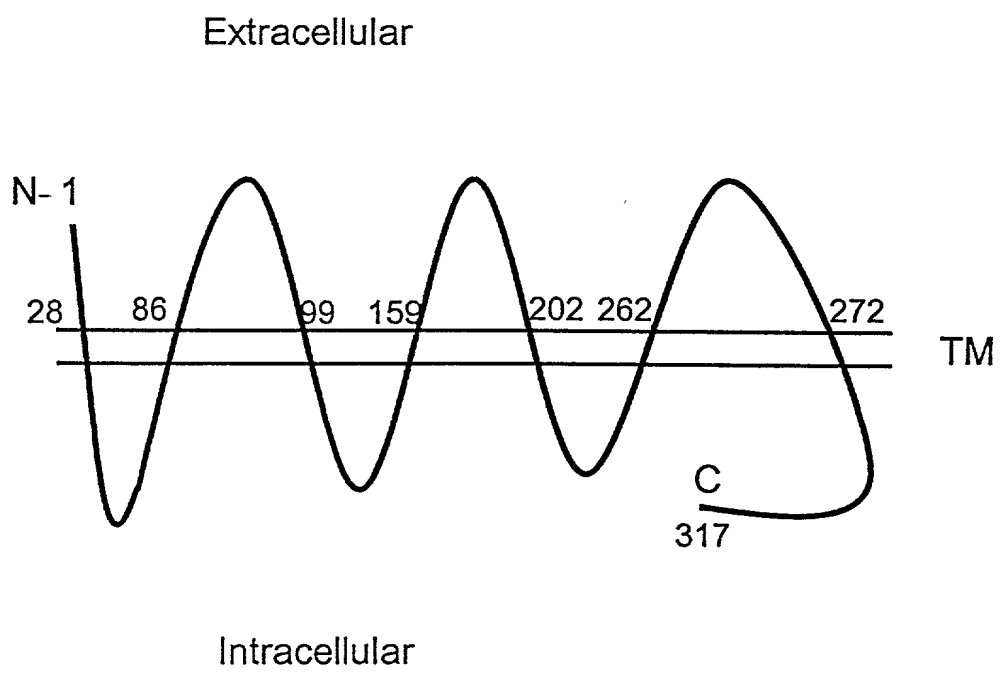




FIG. 5A

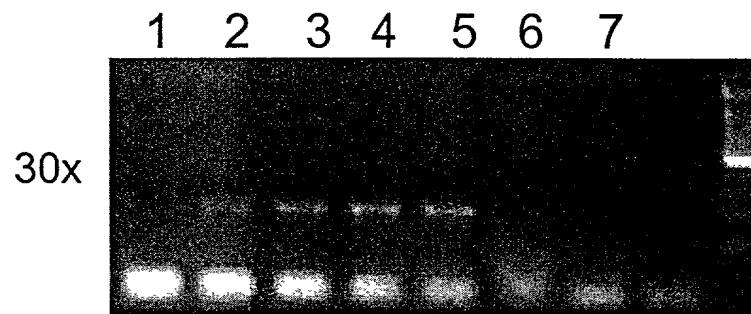


FIG. 5B

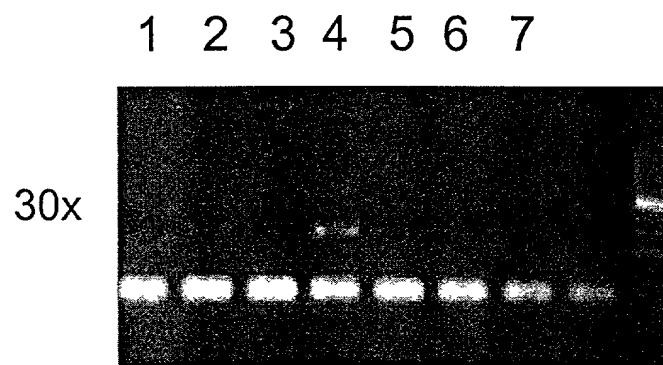


FIG. 6A

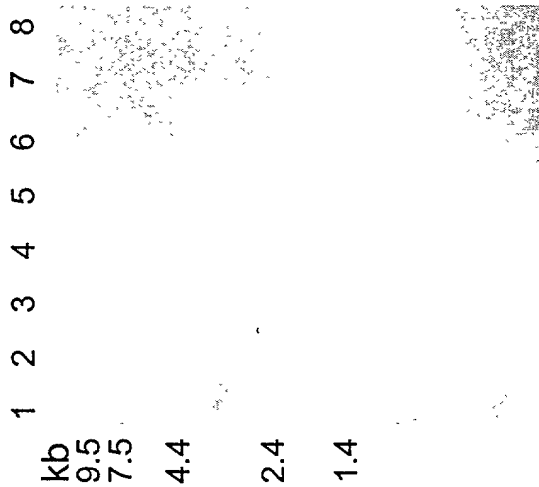


FIG. 6B

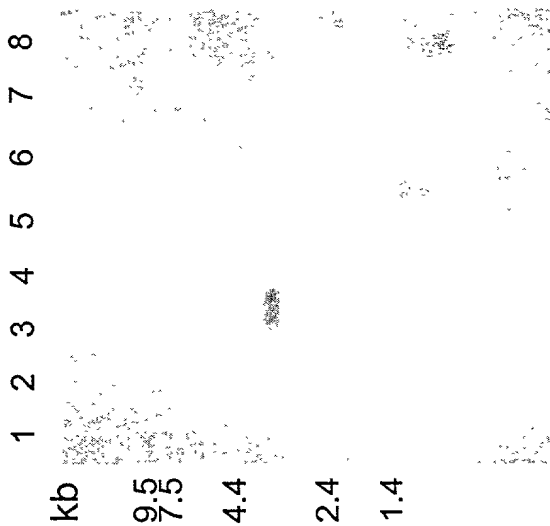
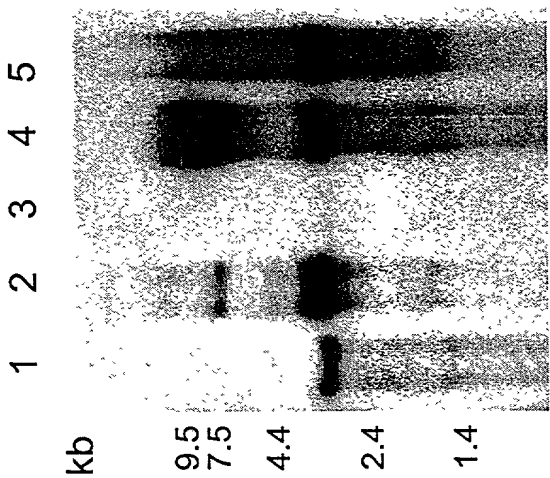


FIG. 6C



**FIG. 7**

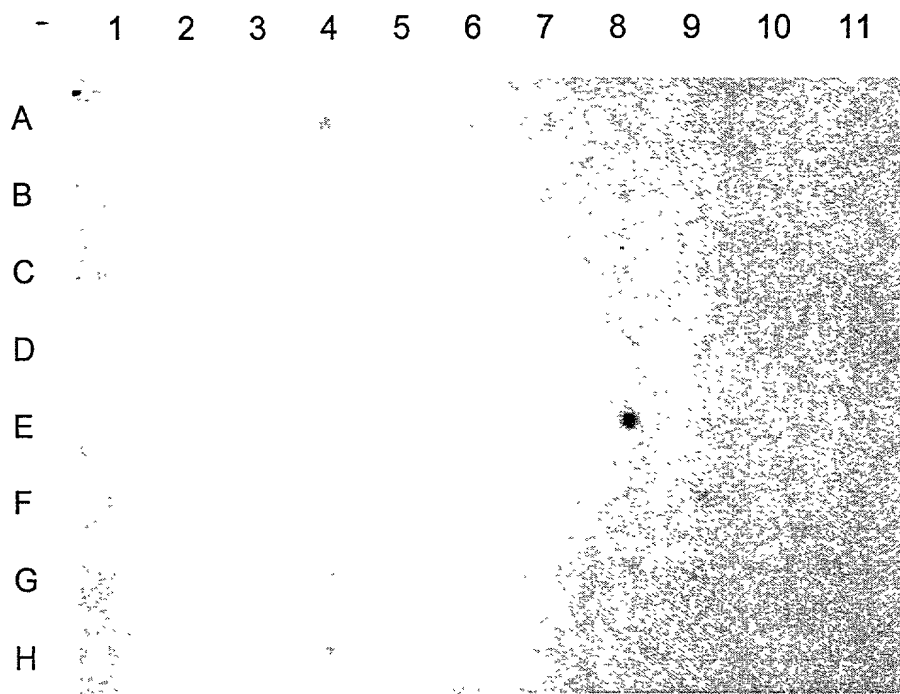


FIG. 8A

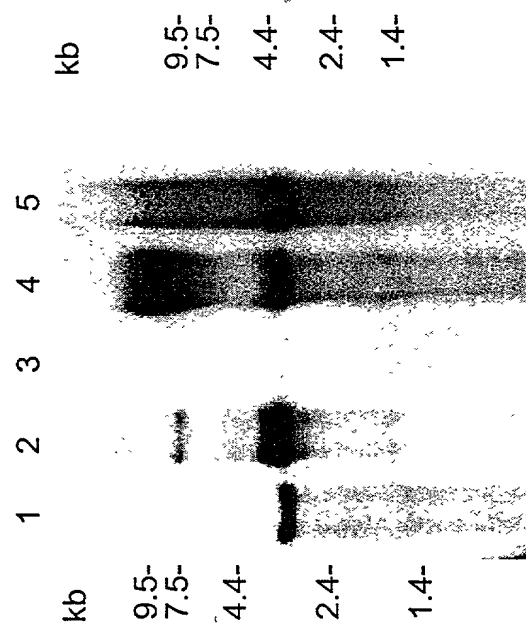
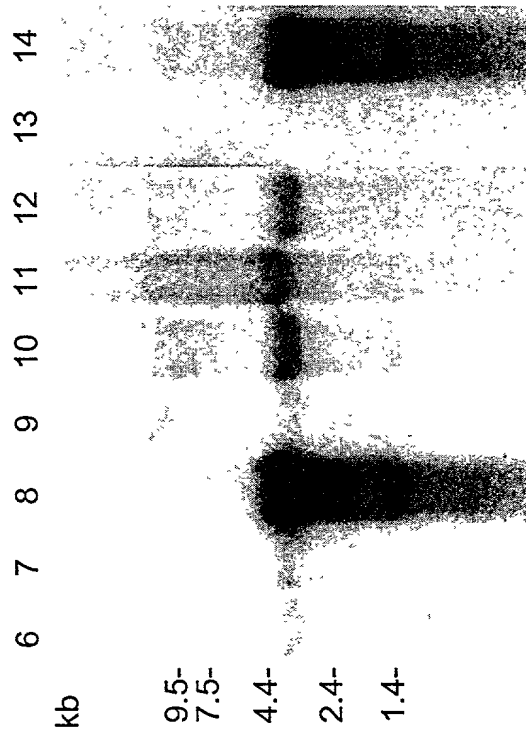
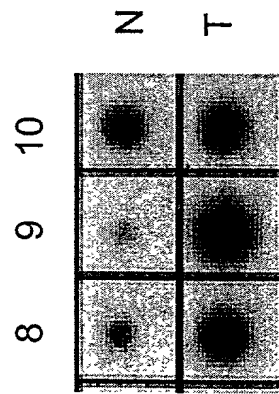
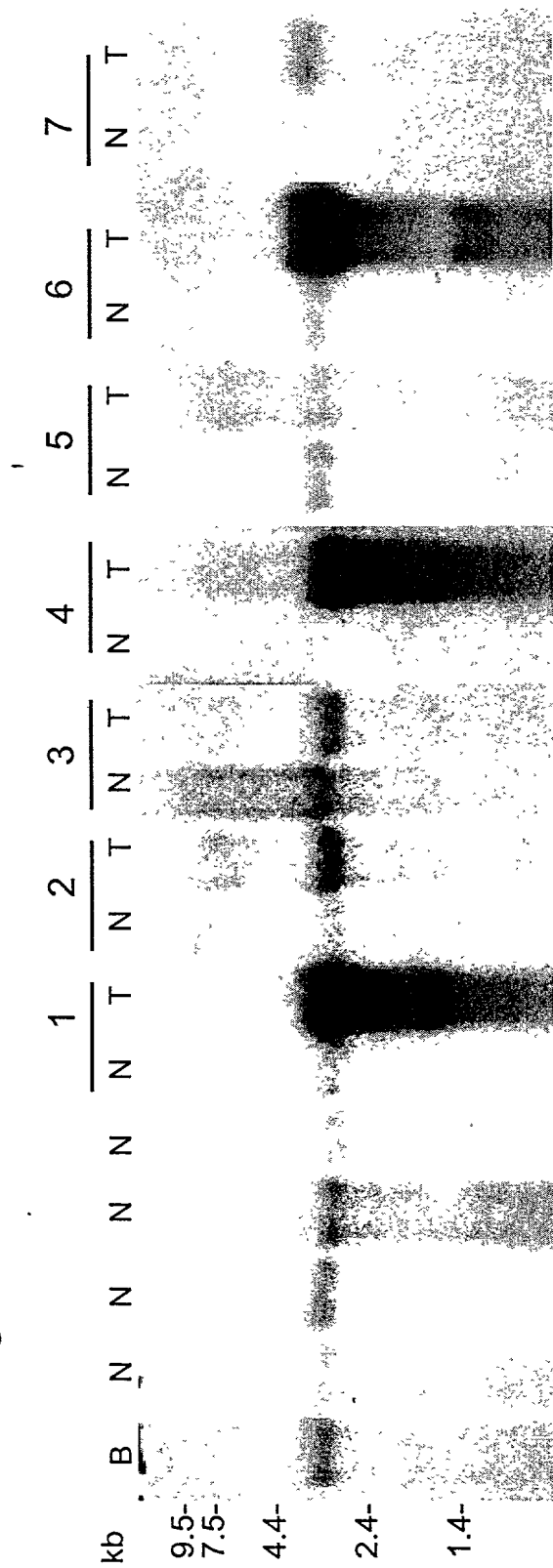


FIG. 8B



**Figure 9A**



**Figure 9B**

Figure 10

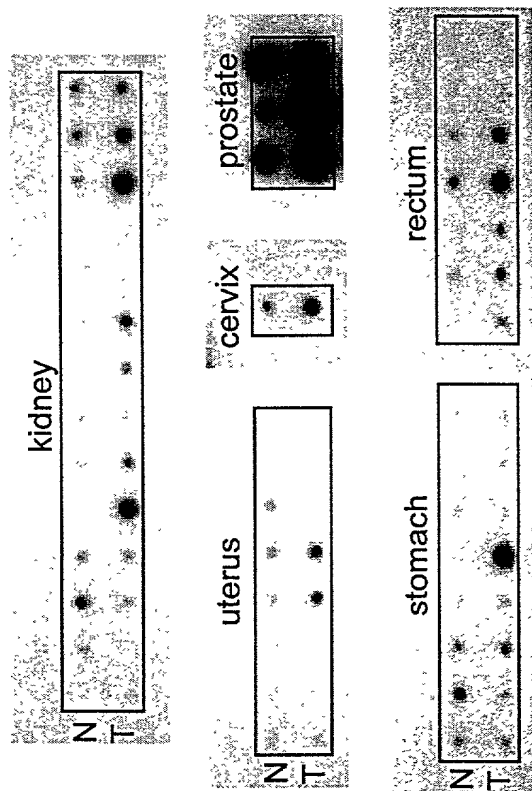


Figure 11A-11B

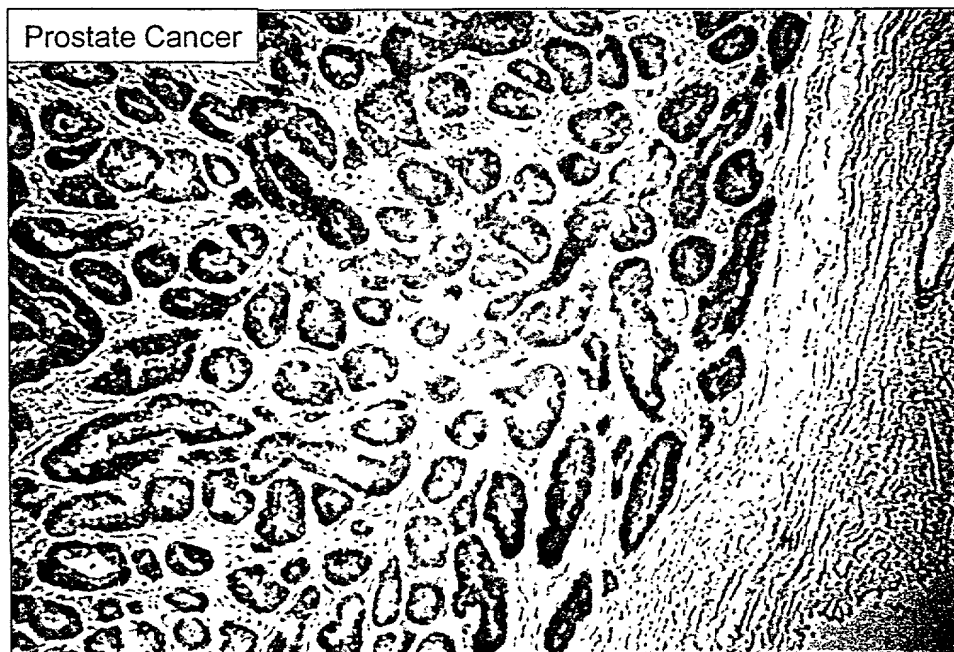
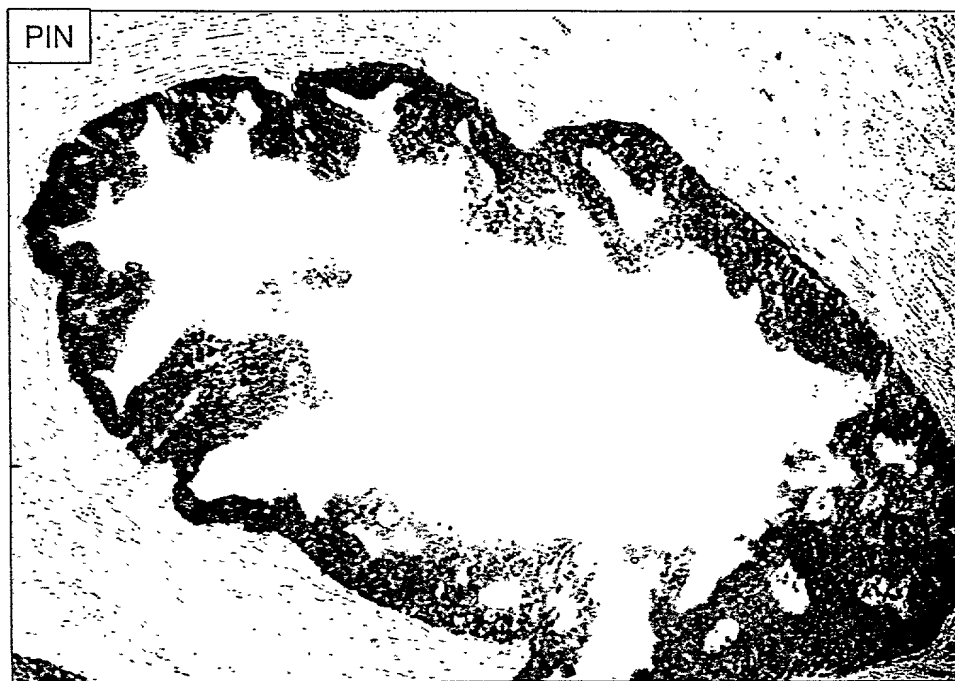


Figure 12A-12B

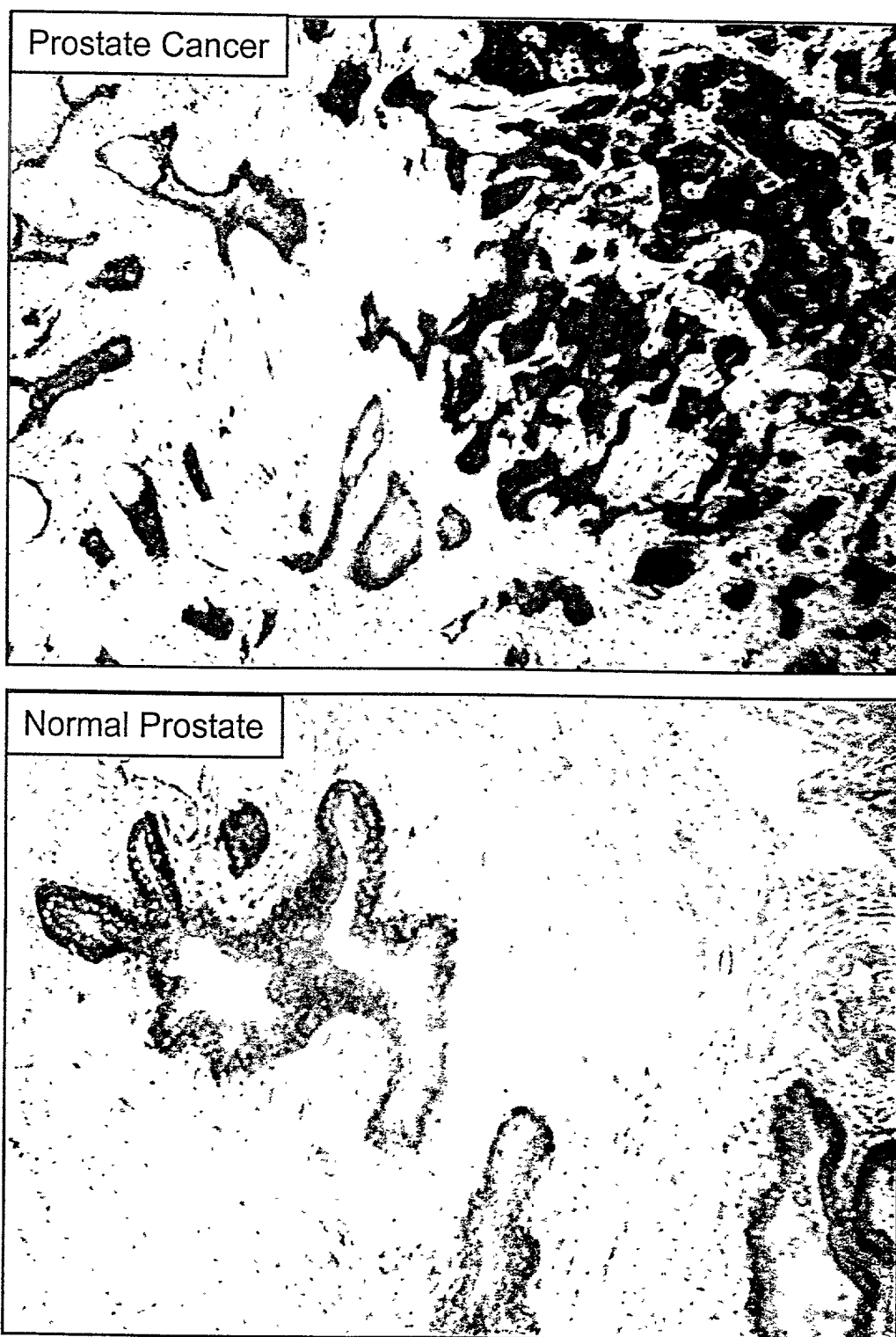




FIG. 13A

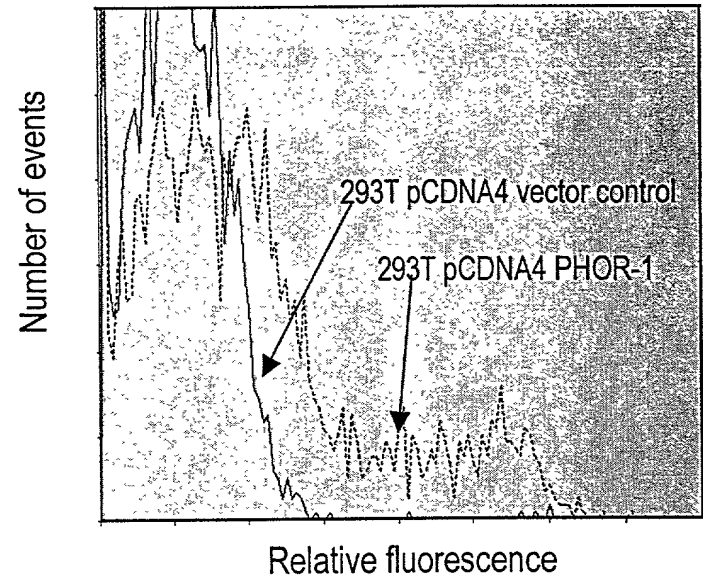


FIG. 13B

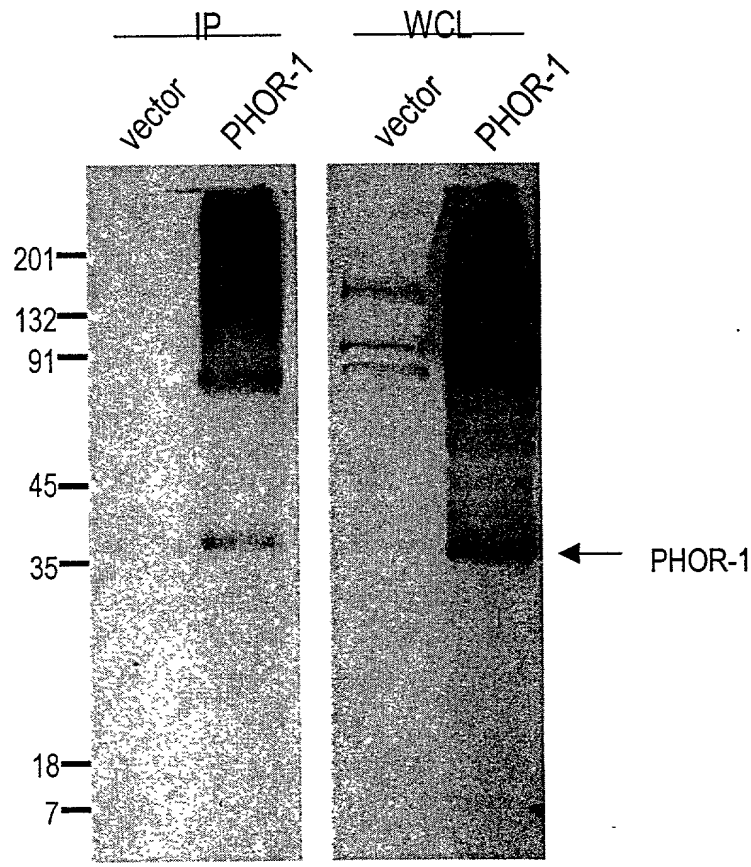


Fig. 14A

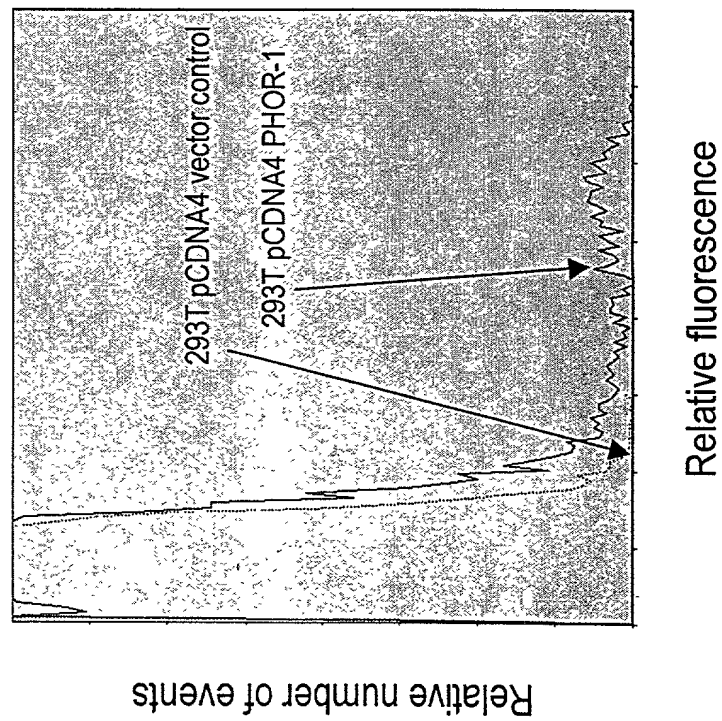


Fig. 14B

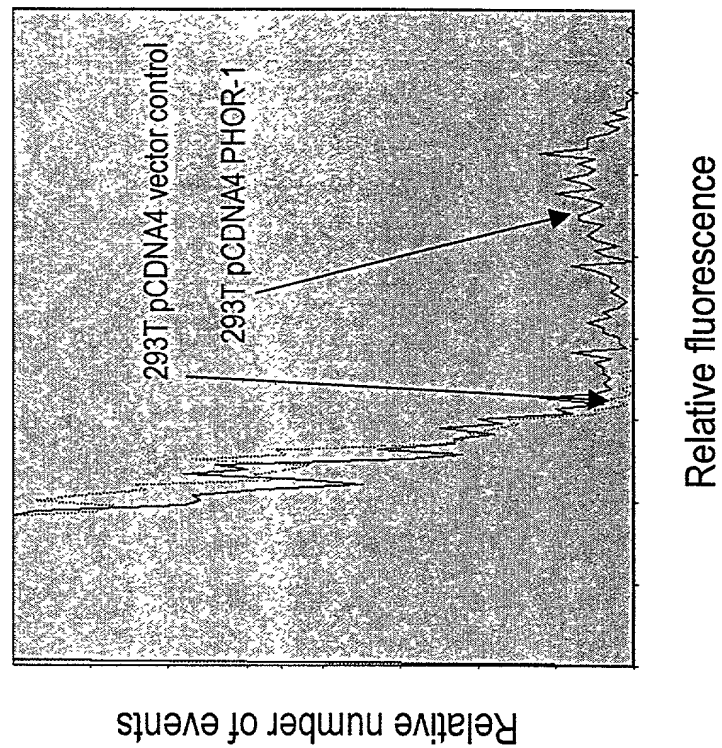


Fig. 15

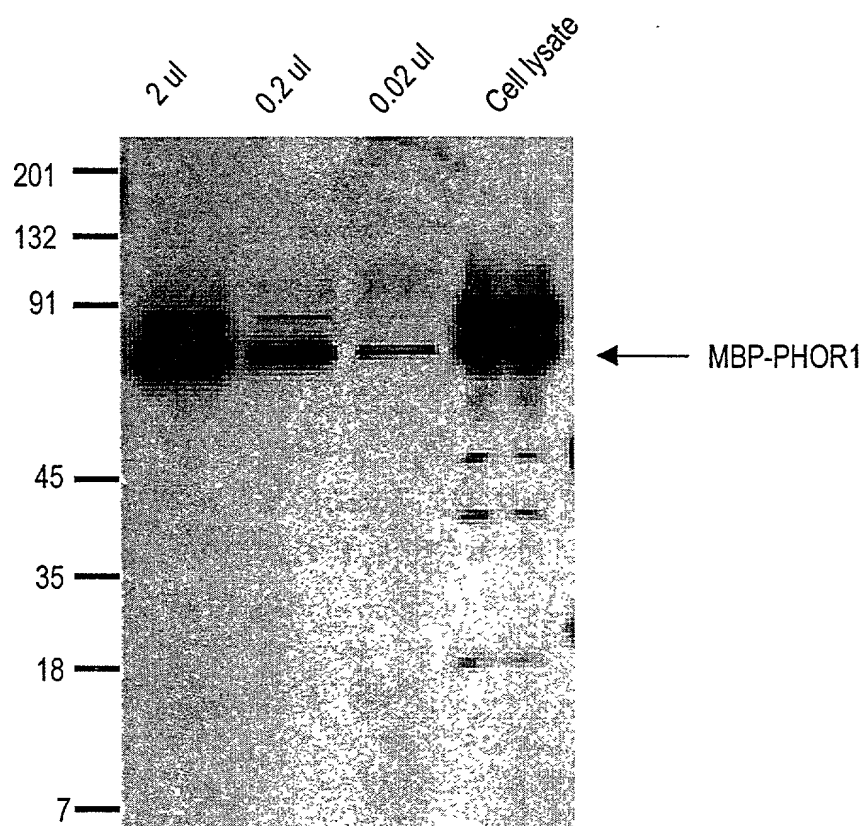


Fig. 16A

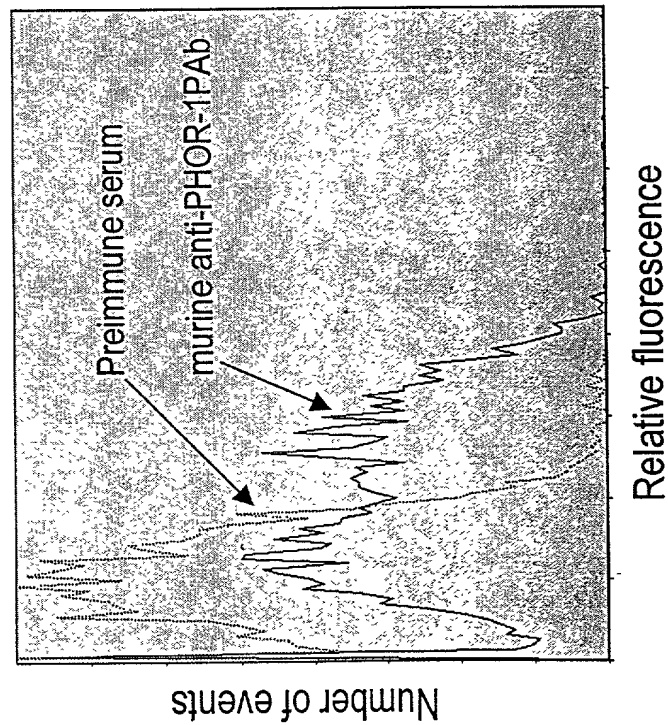
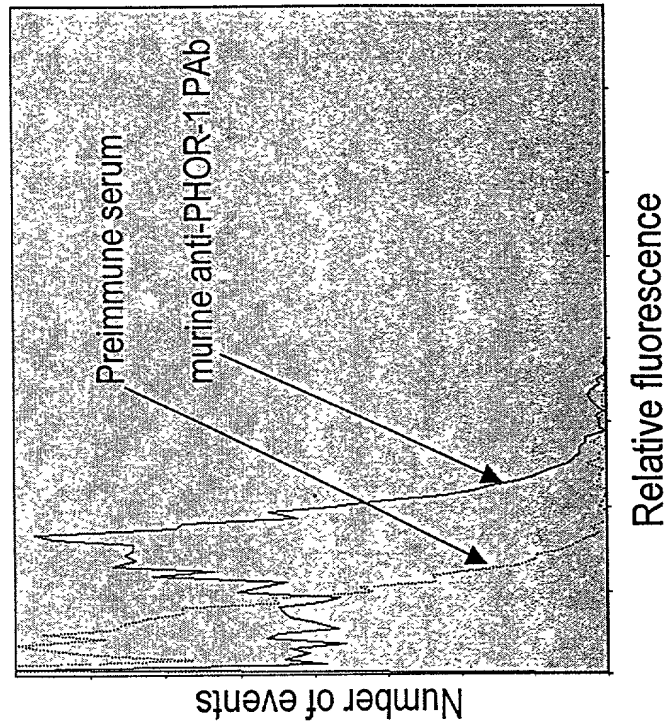


Fig. 16B



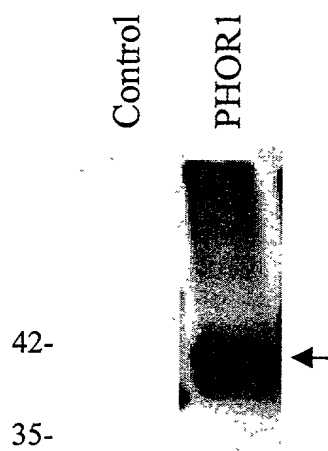


FIG. 17

Figure 18A-F

Fig. 18A. Prostate Cancer, 400X

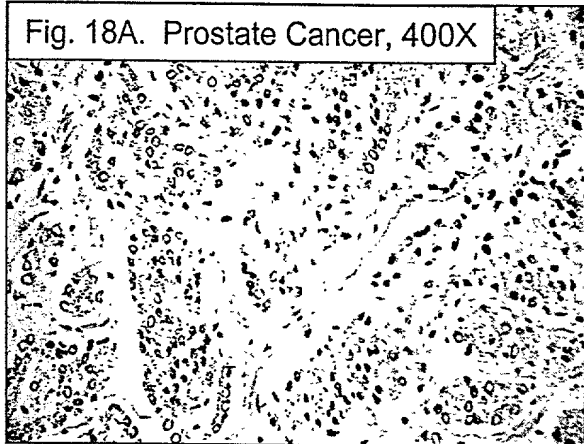


Fig. 18D. LNCaP, 400X

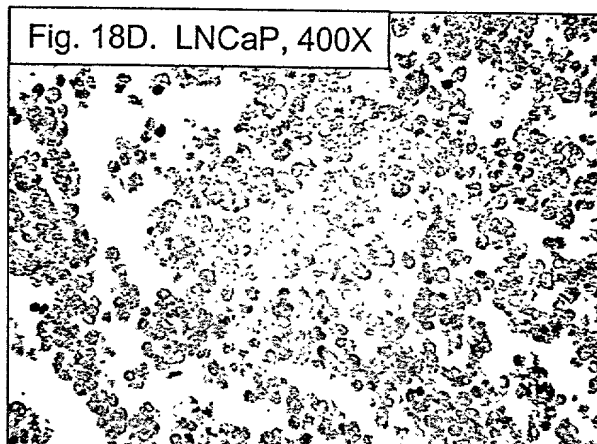


Fig. 18B. Prostate Cancer, 400X

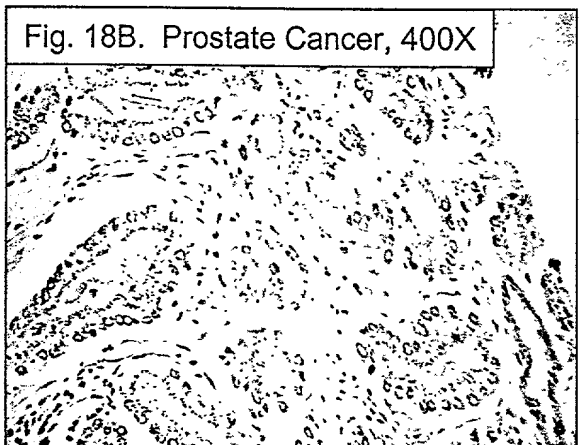


Fig. 18E. Prostate, 400X

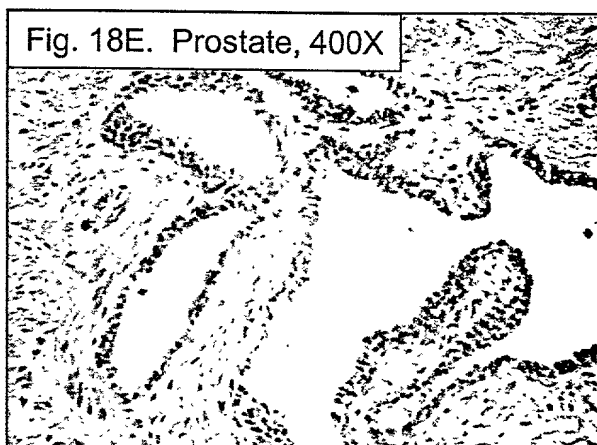


Fig. 18C. Prostate Cancer, 2000X

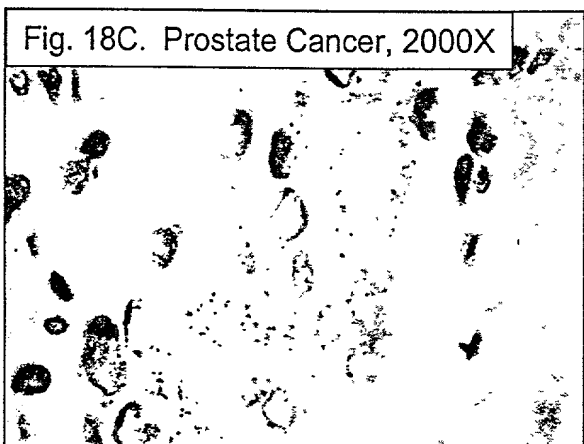


Fig. 18F. Prostate, 2000X

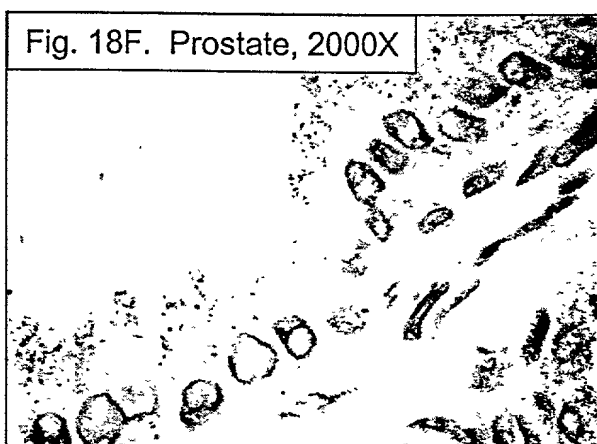


Figure 19A-F

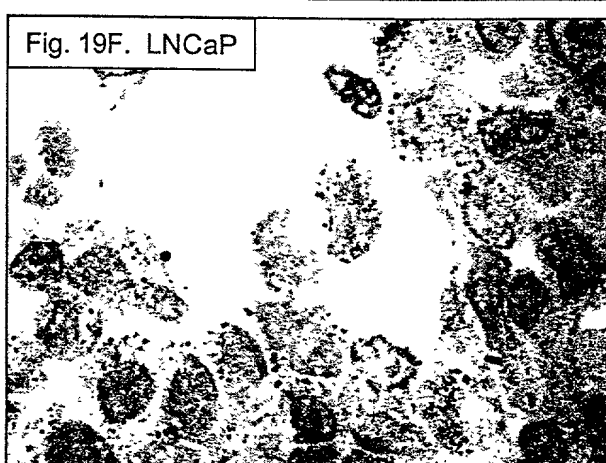
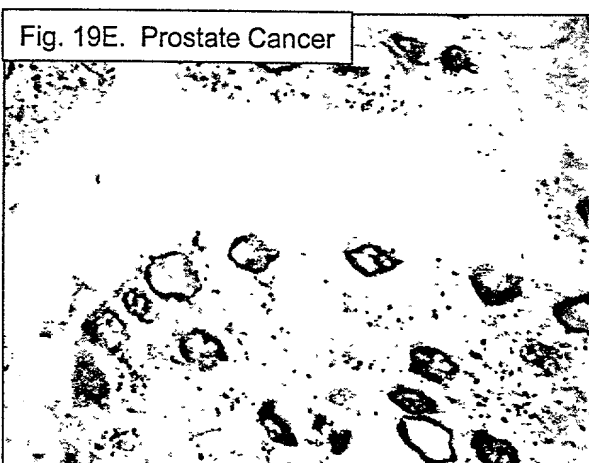
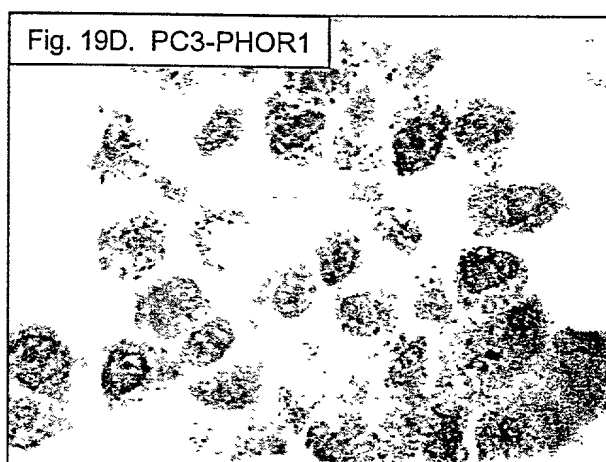
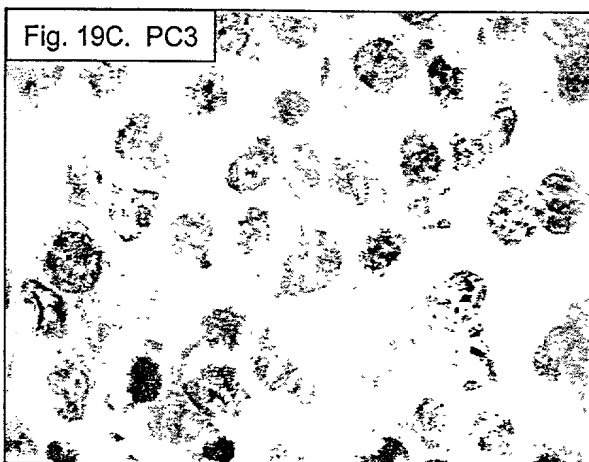
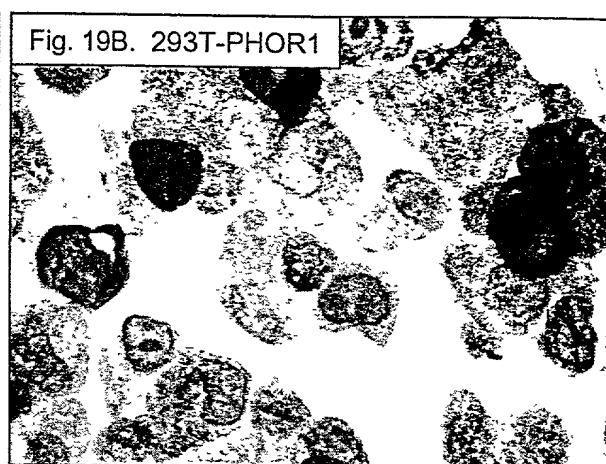
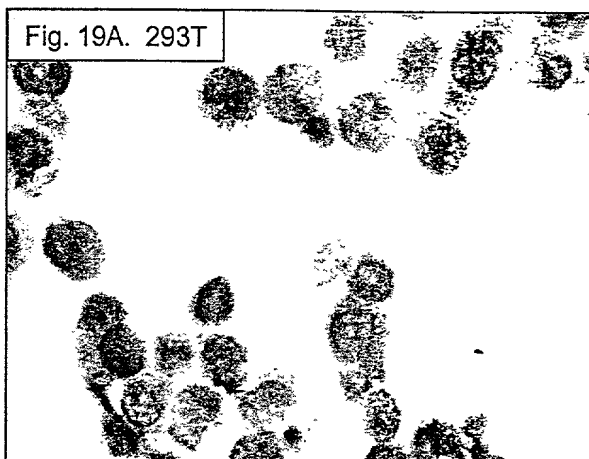


FIG. 20A

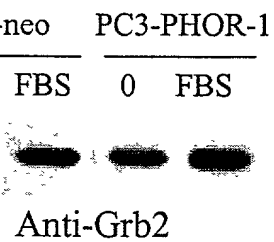
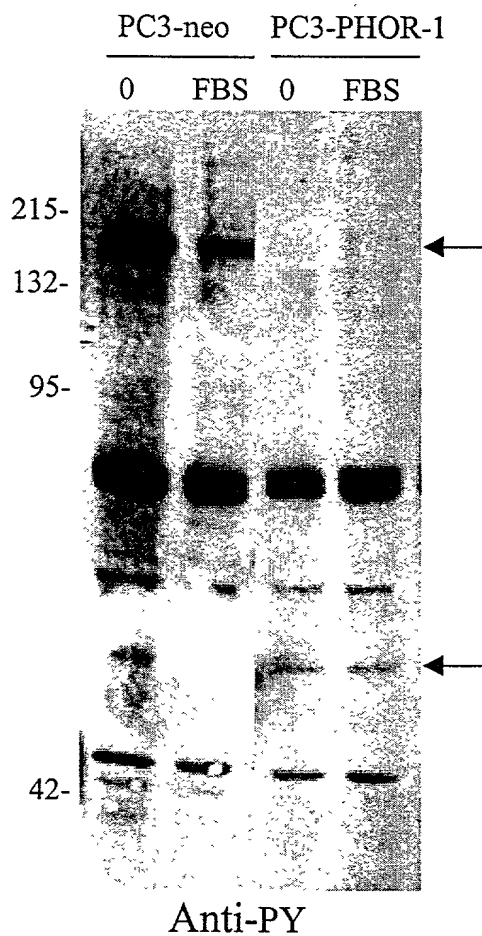


FIG. 20C

FIG. 20B

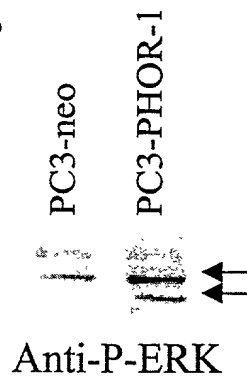


FIG. 20D

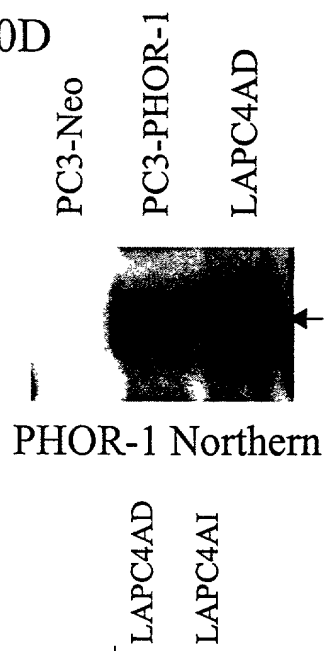
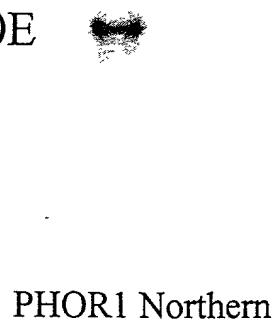


FIG. 20E





Neo



Fig. 21A

PHOR1



Fig. 21B

Ras

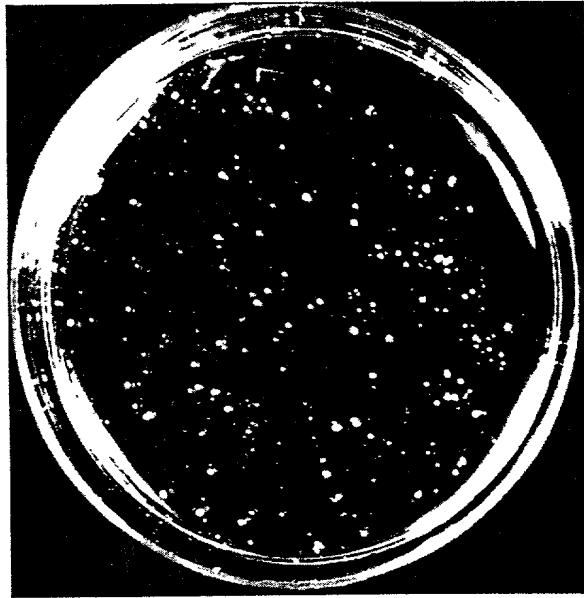


Fig. 21C

[illegible]

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AAA AAA AAA AAA AAA 3'  
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